CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

ORDER NO. 87-139
NPDES NO. CA0029262
WASTE DISCHARGE REQUIREMENTS FOR:

Intersil, Inc.
Cupertino
Santa Clara County

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Intersil, Inc., hereinafter called the discharger, by application dated June 11, 1987 has applied for issuance of waste discharge requirements and a permit to discharge waste under the National Pollutant Discharge Elimination System (NPDES).

2. The discharger operates a facility to manufacture semiconductor devices at 10900 North Tantau Avenue, Cupertino, Santa Clara County. The discharger is presently operating under Order No. 86-49, Site Cleanup Requirements, for the investigation and interim remediation of groundwater contamination at the site.

3. Subsurface investigations initiated in 1985 have detected the presences of trichloroethene, 1,1,1-trichloroethane, 1, 1-dichloroethene, tetrachloroethene, chloroform, and Freon 113 in the soil and groundwater at the site. Other synthetic organic chemicals are also present. Soil samples confirm that there was a failure in Intersil, Inc.'s former 3000 gallon neutralization system, which has been removed from the site.

4. The discharger seeks to contain the further migration of pollutants and to initiate the interim cleanup of the A-aquifer and the vadose zone by extracting groundwater from one perched zone well and four A-aquifer wells and by extracting soil vapor from four soil vapor extraction wells.

5. An average of 17 gallons per minute of groundwater containing synthetic organic chemicals will be treated by air stripping prior to discharge to a storm drain system tributary to Calabazas Creek and South San Francisco Bay.

6. The Regional Board adopted a revised Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) on December 17, 1986. The Basin Plan contains water quality objectives for Calabazas Creek and South San Francisco Bay.

7. The existing and potential beneficial uses of Calabazas Creek include:

Contact and Non-contact Water Recreation
Warm Fresh Water Habitat
Cold Fresh Water Habitat
Wildlife Habitat
Recharge of Groundwater Aquifers
Navigation
Agricultural Supply

8. The existing and potential beneficial uses of South San Francisco Bay include:

Contact and Non-contact Water Recreation
Wildlife Habitat
Preservation of Rare and Endangered Species
Estuarine Habitat
Fish Spawning and Migration
Industrial Service Supply
Shellfishing
Navigation
Ocean commercial and sport fishing

9. The Basin Plan prohibits the discharge of wastewater which has "particular characteristics of concern to beneficial uses" (a) "at any point in San Francisco Bay south of the Dumbarton Bridge" and (b) "at any point where the wastewater does not receive a minimum initial dilution of at least 10:1 or into any nontidal water, deadend slough, similar confined water, or any immediate tributary thereof."

10. The Basin Plan allows for exceptions to the prohibitions referred to in Finding 9 above when it can be demonstrated that a net environmental benefit can be derived as a result of the discharge.

11. Exceptions to the prohibitions referred to in Finding 9 are warranted because the discharge is an integral part of a groundwater remediation program and thereby produces an environmental benefit, and because receiving water concentrations are expected to be below levels that would affect beneficial uses.

12. The Basin Plan prohibits discharge of "all conservative toxic and deleterious substances, above those levels which can be achieved by a program acceptable to the Board, to waters of the Basin." The discharger's groundwater extraction and treatment system and associated operation, maintenance, and monitoring plan constitutes an acceptable control program for minimizing the discharge of toxicants to waters of the State.

13. Effluent limitations in this Order are based on the Basin Plan, State plans and policies, this Board's "Discharge of Polluted

Groundwater to Surface Waters: Guidance Document, September 1985", the EPA draft, "NPDES Permit Limitations for Discharge of contaminated Groundwater: Guidance Document" and best engineering judgment.

14. The issuance of waste discharge requirements for this discharge is exempt from the provisions of Chapter 3 (commencing with Section 21100) of Division 13 of the Public Resources Code (CEQA) pursuant to Section 13389 of the California Water Code.

15. The Board has notified the discharger and interested agencies and persons of its intent to issue waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

16. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following:

A. Effluent Limitations

1. The effluent at a point in the outlet or outfall from the groundwater treatment system prior to discharge to the storm drain shall not contain constituents in excess of the following limits.

Constituent	Units	Instantaneous Maximum
1,1,1-trichloroethane	ug/l	5
trichloroethene	ug/l	5
1,1-dichloroethene	ug/l	5
tetrachloroethene	ug/l	5
Freon 113	ug/l	5
Chloroform	ug/l	5

2. The pH of the discharge shall not exceed 8.5 nor be less than 6.5.

3. In any representative set of samples, the discharge of waste shall meet the following limit of quality:

TOXICITY: The survival of test fishes acceptable to the Executive Officer in 96 hour bioassays of the effluent as discharged shall be a median of 90% survival and a 90 percentile value of not less than 70% survival.

B. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Bottom deposits or aquatic growths;

   c. Alteration of temperature, turbidity, or apparent color beyond present natural background levels;

   d. Visible, floating, suspended, or deposited oil or other products of petroleum origin;

   e. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

   a. pH: The pH shall not be depressed below 6.5 nor raised above 8.5, nor caused to vary from normal ambient pH levels by more than 0.5 units.

3. The discharge shall not cause a violation of any applicable water quality standard for receiving waters adopted by the Board as required by the Federal Water Pollution Control Act and regulations adopted thereunder. If more stringent applicable water quality standards are promulgated or approved pursuant to Section 303 of the Federal Water Pollution Control Act or amendments thereto, the Board will revise and modify this Order in accordance with such more stringent standards.

Provisions

1. The discharger shall comply with all sections of this Order immediately upon discharge.

2. The discharger shall comply with the self-monitoring program as adopted by the Board and as may be amended by the Executive Officer.

3. The discharger shall also notify the Regional Board if any activity has occurred or will occur which would result in the discharge, on a frequent or routine basis, of any toxic pollutant which is not limited by this Order.

4. The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements" dated December 1986, except items B.2, B.3, C.8, and C.11.

5. This Order expires October 21, 1992. The discharger must file a report of waste discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

6. This Order shall serve as a National Pollutant Discharge Elimination System Permit pursuant to Section 402 of the Clean Water Act or amendments thereto, and shall become effective 10 days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Roger B. James, Executive Officer do hereby certify the foregoing is a full, true and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region on October 21, 1987.

ROGER B. JAMES
Executive Officer

Attachments:

Standard Provisions & Reporting Requirements, December 1986
Self-Monitoring Program
Site Map

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

FOR

INTERSIL, INC.

10900 North Tantau Avenue

Cupertino, Santa Clara County

NPDES NO. CA0029262

ORDER NO. 87-139

CONSISTS OF
PART A, Dec. 1986
(As modified by SBTD 1/23/87,
with Appendices A - E)

and
PART B, adopted October 21,1987,
amended February 29, 1988

PART B

INTERSIL, INC.

10900 North Tantau Avenue
Cupertino, Santa Clara County

I. DESCRIPTION OF SAMPLING STATIONS

A. Influent

Stations	Descriptions
I-1	At a point in the groundwater extraction/ treatment system immediately prior to any treatment.

B. Effluent

E-1	At a point in the groundwater extraction/ treatment system immediately following treatment and prior to discharging into the storm drain.

C. Receiving Waters

C-1	At a point in Calabazes Creek within 10 meters downstream from the storm drain discharge point.

II. MISCELLANEOUS REPORTING

At least 30 days before any chemicals are utilized in or added to the treatment system, they shall be reported to the Executive Officer for review and approval.

III. SCHEDULE OF SAMPLING AND ANALYSIS

A. The schedule of sampling and analysis is provided in Table 1 (attached).

IV. MODIFICATION OF PART A

A. Delete Sections D.2.e, D.2.g, E.3 and E.4.

B. The first paragraph of Section G.4 shall be changed to read as follows:

> Written reports shall be filed with the Regional Board regularly for each calendar quarter (unless otherwise specified) and filed no later than the fifteenth day of the following month. The reports shall be comprised of the following:

C. Section G.4.b shall be changed to read as follows:

Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared similar to the example shown in APPENDIX A (attached). The discharger will prepare the format substituting for the example parameters those parameters and requirement limits for influent, effluent, and receiving water constituents specified in the permit.

D. The first paragraph of Section G.4.d shall be changed to read as follows:

Results of Analyses and Observations

Each report shall include tabulations of the results from each required analysis specified in Part B by date, time, type of sample, detection limit and station. Laboratory analytical reports shall be signed by the laboratory director. The report format will be prepared similar to the examples shown in APPENDIX B, substituting those parameters specified in the permit for the parameters given in the example.

E. Information requested under Section G.4.e shall be prepared in a format similar to EPA Form 3320-1 and shall be submitted only to the Regional Board.

F. Section G.5 shall be modified to read as follows:

Annual Reporting

By January 30 of each year, the discharger shall submit in place of the end of the year monthly report, an annual report to the Regional Board covering the previous calendar year. The report shall contain both tabular and graphical summaries of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger similar to the examples shown in APPENDIX D (attached) substituting those parameters specified in the permit for the parameters given in the example and should be maintained and submitted with each regular self-monitoring report.

I, Roger B. James, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 87-139.

2. Was adopted by the Board on October 21, 1987 and amended by the Executive Officer on February 29, 1988.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or upon request from the discharger, and revisions will be ordered by the Executive Officer.

for ROGER B. JAMES
Executive Officer

Attachments: Table 1

TABLE 1
SCHEDULE FOR SAMPLING, MEASRUEMENTS, AND ANALYSIS

SAMPLING STATION >>>>	I-1	E-1	C-1	
TYPE OF SAMPLE	G	G	G	
Flow Rate (gal/day)		D[a]		
pH (units)	M	M	M	
Temperature (deg. C)		M		
EPA 601/602 for: purgeable priority pollutants in addition to: Freon 113	M	M	M	
GC/MS Scan (EPA 624)		2/Y*		
Toxicity		1/Y		

LEGEND FOR TABLE 1

G = grab sample
D = once each day
M = once each month
Q = quarterly, once in March, June, September and December
M/Q = monthly for three months at startup of operation; reduced to quarterly thereafter
2/Y = Once in March and once in September
1/Y = once per year

* EPA 601/602 not required for months when EPA 624 is performed.

FOOTNOTE

a. Daily values will be calculated from weekly total flow readings.